INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Office of Land Quality

Environmental Restrictive Covenant Submittal Preparation Guidelines

INTRODUCTION

These guidelines should be utilized when preparing a draft Environmental Restrictive Covenant (ERC) to submit to the Indiana Department of Environmental Management (IDEM) for approval after IDEM has determined that land use restrictions are appropriate as an interim or final remedy at a particular site. IDEM's primary objectives are to ensure that ERCs contain clearly defined restrictions and sufficient information regarding the type and location of residual contamination to protect the public from unreasonable risk of future exposure to hazardous substances or petroleum.

The draft ERC should be submitted to the IDEM Project Manager (PM) assigned to the site within each Office of Land Quality (OLQ) Program Area. The PM will then coordinate any necessary internal reviews within IDEM. A draft ERC is not considered formally approved until IDEM issues an ERC Approval Letter.

I *Environmental Restrictive Covenant Contents*

1. Format

The information presented in this document are guidelines only; at this time ERC preparers are not required to adhere to a prescribed format. Following these guidelines will greatly simplify and expedite the review and approval process. Because the conditions at each site are unique, the ERC and attached exhibits should be tailored to the site's specific conditions; some sites may require more detail than others.

There are some general requirements regarding documents to be recorded that are dictated by the County Recorder statute. These requirements include:

A. The ERC must be on white paper with clean margins as follows:

1. The first and last pages of the ERC have at least a 2-inch margin at the top and bottom and a ½-inch margin on the sides

2. All other pages must have at least a ½ inch margin at the top, bottom and side

B. The document must be in type-face (no handwritten notes) in BLACK ink in at least 10 point type.

C. The recorder will charge $1 extra for each page in non-conformance with the above criteria. (Note: it appears the county recorders will take the ERC package if the above criteria aren't met, but it will cost more to record the ERC. IC 36-2-11-16.5(b)(2))

2. Recitals

IDEM staff developed a template ERC for use; this template should be completed and submitted to IDEM for review and approval. The template ERC contains text instructions within brackets where site-specific details need to be added. Questions regarding completion of the ERC template may be directed to the assigned IDEM PM. While use of the ERC template is not mandatory, it will greatly expedite the review process.

In order for the ERCs to be 'searchable' at the various county recorder offices, the owner's name should be written in the first or second paragraphs of the ERC. The owner's[1] address and site address should also be provided. In addition, both the owner's and notary's names should be typed or printed below the signature block at the end of the main ERC body. The owner's name on the signature block should match the name included in the first or second paragraph of the ERC. A final copy of the ERC and proof of recording (certified copy of the ERC and the 'Affidavit for Recording an ERC') must be submitted to the IDEM PM.

3. Attachments

A. **Exhibit A, Legal Description:** A certified copy[2] of the entire warranty deed[3] with the property owner's name and a legal description of the entire property must be provided for review**.** The deed must identify the owner and the name on the deed must match the name of the current owner provided in the ERC. If the names do not match, additional information must be provided to clarify ownership. For example, if a corporation owns the property but the corporate name on the deed is not the same as the corporate name in the ERC, then proof that the corporation on the deed is the predecessor to the current corporation must be submitted. The entire deed does not need to be attached as an exhibit to the ERC and recorded – only the page containing the legal description from the deed.

If the deed does not adequately describe the property due to subsequent land transactions, a new legal description will need to be prepared by a professional land surveyor, with the professional seal/certification stamped on the new legal description. Legal descriptions that have been created or retyped from another document are not acceptable as IDEM has no way to ensure their accuracy.

B. Exhibit B, Description of Contamination: A description of the contaminant types, amounts, and location must be provided. If more than one table is provided, the pages should be marked as EXHIBIT B1, EXHIBIT B2, etc. Two acceptable methods to submit the information are included as items 1 and 2 below:

1. Tables with sample points keyed to one or more of the maps comprising Exhibit C. For legibility, IDEM recommends: (1) analytical results be documented separately on a table and keyed to the map with sample locations labeled only with their boring or well identification number (i.e., do not include analytical results on the map(s)); (2) tables and maps do not contain shading, color, or cross-hatched areas; and (3) the selection of at least 10 point type font.

   An example table is included as Attachment A to this guidance. This is one way to display the information relevant to the ERC; other formats that contain the relevant information are acceptable. Tables should include the following information:

   (a) Analytical results *above* applicable RISC residential closure levels (do not include non-detects or detects below residential closure levels as this information is not relevant to the ERC);

   (b) Date(s) of samples. Note: the goal of the ERC is to provide a record of residual contamination of the release being addressed *at the time the ERC is recorded*. Therefore, the sample information provided should reflect the latest known soil and groundwater contaminant levels for the release (for example, the latest groundwater monitoring results if a series of samples were collected);

   (c) Sample identification numbers;

   (d) Sample depth;

   (e) List of each contaminant of concern (COC) with a concentration exceeding the applicable RISC residential closure level;

   (f) COC concentrations with units;

   (g) Chemistry Abstract Service (CAS) Registry Numbers (these are unique numeric identifiers for COCs, used because chemicals often have multiple names);

   (h) Applicable RISC default Closure Levels with Units [with reference to applicable closure level year table (e.g., RISC Industrial Default Closure Levels, 2006)] or site-specific levels [with reference to date and title of risk assessment].

2. A brief narrative description of the contamination that includes:

   (a) A description of the COCs remaining at the site with analytical results *above* RISC residential closure levels including: 1) relevant sample identification numbers; 2) affected media (soil, groundwater, surface soil, etc) and pathways of exposure; 3) COC name and CAS numbers; 4) ranges of contaminant concentrations for the relevant site samples;

(b) The applicable RISC closure level (including date of RISC default closure level tables) OR, if site is closed pursuant to a site-specific risk assessment, include a reference to the document title and date;

(c) A general description of the location of the soil contamination;

(d) Optional - a general description of the groundwater plume including the size and location of the plume on the property (e.g., approximately one acre on the northwest corner of the property), the direction of flow (e.g., groundwater flows to the north).

3. As needed - a table of GPS summary data for areas of concern and certain engineering controls as described in the 'Exhibit C' section below. The table should include the data file attributes (X Coordinate, Y Coordinate, correction method, etc.) listed in the Deliverables – Data Files section in the *IDEM Office of Land Quality Spatial Data Collection Standards* document.

Exhibit C, Site Map(s): A map of the entire property should be submitted that includes a depiction of areas of concern as outlined below. Depending on the size of the property or the areas restricted, ***more than one map may be necessary***. If more than one map is provided, the pages should be marked as EXHIBIT C1, EXHIBIT C2, etc.

Maps must be legible when duplicated in **black and white**. The size of the map may vary, but the maximum size may be limited by the scanning capabilities of the county recorder. Typical EXHIBIT C map sizes range from letter (8 ½ x 11 inches) to ledger (11 x 17 inches). The map preparer is advised to check with the county recorder's office when the use of maps larger than 8 ½ X 11 inches is being considered.

Extraneous information that clutters the map(s) should not be included. Maps need to be clearly labeled and show all relevant information pertaining to site restrictions and engineering controls, including:

1. Parcel or lot numbers;
2. The address of the property;
3. The physical features relevant to the ERC (labeled) such as:
    (a) The site property boundary;
    (b) Pavement and roads (labeled with names), fences, and buildings (clearly marked if they constitute a physical engineering control);
    (c) Sample point locations from Exhibit B (if using table format to describe contamination, Section 3.B.1). Only include sample points where contamination above RISC residential closure levels. To ensure legibility do not place analytical results on maps.
    (d) Areas of concern (if applicable) - IDEM recommends including a 'set back' from the area of concern, as determined by sample data or model predictions, in order to account for field uncertainties;
        (i) For soil contaminant levels remaining above industrial closure levels (either the default or site-specific), but below construction worker (a.k.a. excavation) levels- depict the areal extent, denoted by Global Positioning System[4] (GPS) coordinates, of contaminants of concern *above* the RISC industrial closure level for soil. Label this area the "Affected Area".
        (ii) For soil contaminant levels above construction worker (a.k.a. excavation) closure levels left in place - depict the areal extent, delineated with Global Positioning System[4] (GPS) points, of contaminants of concern *above* the RISC construction worker level. Label this area the "Construction Worker Restriction Area".
        (iii) The depiction of groundwater contamination and geologic cross-sections is optional for purposes of the ERC. If the location of groundwater contamination is shown, it should be displayed with geologically interpreted isopleths. Do not simply place circles around affected sampling points; this does not constitute a professional interpretation of the extent of groundwater contamination.
    (e) Engineered Control locations (if applicable);

i. Engineering controls with areal extent (caps, covers, slurry walls, grout curtains, etc.) should be denoted by GPS[4] coordinates;

ii. The location of other engineering controls, such as the location of groundwater extraction wells, 'pump and treat' groundwater systems, or vapor mitigation systems, may be denoted by a labeled point on the map.

4. A graphic (a.k.a. bar) scale, north arrow, and a legend explaining map symbols and/or abbreviations;
5. Surface water bodies, retention basins, ditches or stormwater structures;
6. A disclaimer statement must be on the map that states:

DISCLAIMER: Information on this map is being provided to depict environmental conditions on the Real Estate that are the subject of the land use restrictions contained in the Covenant to which this map is attached and incorporated. The land use restrictions contained in the Covenant were deemed appropriate by the Department based on information provided to the Department by the Owner or another party investigating and/or remediating the environmental conditions on the Real Estate. This map cannot be relied upon as a depiction of all current environmental conditions on the Real Estate, nor can it be relied upon in the future as depicting environmental conditions on the Real Estate.

D. Exhibit D (Upon Request of IDEM PM): Copies of easements, including a map, diagram, or survey showing the relationship of the easement to the contaminated and/or restricted area. IDEM may request this exhibit when residual contamination above construction/excavation worker level(s) is located within or adjacent to utility corridors.

II *Other Documents Related To Environmental Restrictive Covenants*

1. Affidavit for Recording an ERC

After an ERC is recorded in the County Recorder's office, a certified copy of the ERC should be submitted to IDEM with a signed and notarized 'Affidavit for Recording an Environmental Restrictive Covenant'. The affidavit is used as a check to ensure the ERC and its attachments, in the version approved by IDEM, was recorded in its' entirety. Information to be completed on the affidavit includes the deed record number or instrument number of the deed that concerns the property subject to the ERC, and the book and page or instrument number of the recorded ERC. The affidavit itself does *not* need to be recorded.

2. Engineering Control Documentation

If Engineering Controls (ECs) are utilized as part of an interim or final remedy for a site[5], approval of their use, their design specifications (if requested by the OLQ program), and Operations and Maintenance (O&M) plans should be obtained *prior* to drafting the ERC submittal package.

Engineering Control Plans/As-Builts*.* If an EC is utilized at a site as part of an interim or final remedy, the OLQ program area may ask for plans and/or as-built diagrams of each passive[6] or active[7] engineering control to be submitted for approval. EC documentation will be reviewed and maintained as part of the public record for the site.

A. **Engineering Control Operation and Maintenance Plan**. This document may be referenced within the ERC[5] by title and date, after approval by IDEM. The O&M Plan should include a narrative description that includes the following elements:

1. General description, purpose, and function of the engineering control, including when it was installed;
2. Photographic record of engineering control showing condition at time of submittal of the O&M Plan (if installed at that time);
3. Description of the inspection procedures and tasks to be completed as part of routine operation and maintenance of the system, including frequency. This portion may include sampling plans if physical or visual evaluation cannot be conducted (e.g., slurry wall);
4. Description of how alterations or disturbance of the control will be addressed (e.g., restoration of cap if utility work is necessary);
5. Financial Assurance information where required by program.

3. FUTURE SUBMITTALS – IDEM Institutional Controls Annual Certification and Inspection Report. In order to track sites with continuing obligations via institutional controls and/or engineering controls, IDEM is transitioning to annual certification and inspection reporting. The property-specific ERC will designate in the 'Restrictions and Obligations' section those real estate parcels where property owners will be responsible for submitting the *IDEM Institutional Controls Annual Certification and Inspection Report.* Tracking and compliance information submitted in this report will be entered into the IDEM Institutional Control Registry, currently in development. The long-term goal is to have the IDEM Institutional Control Registry information available to the public in a web-based format.

The property owner may utilize the *IDEM Institutional Controls Annual Certification and Inspection Report* state form or alternatively, the property owner may provide the following information in their preferred format as long as the information is complete:

Certification Information: This portion of the report documents that the appropriate restrictions are and controls still in place, that land use and zoning has not changed, and the property owner name and contact information.

1. Owner contact information including the current property owner's name; owner address; phone number; email address; and whether the property owner has changed or is anticipated to change.
2. Property information including the property address; state or federal program identification number (where applicable); IDEM program issuing ERC approval, and whether the property is being leased;
3. Control mechanism type (ERC, ordinance, order, etc.); date of recorded ERC (where applicable); land use type;
4. List of restrictions that apply at the property and certification that those restrictions are still in place (zoning has not been changed to allow residential use, no groundwater wells have been installed for groundwater use restrictions, etc.);
5. Certification that all other land use restrictions listed in the ERC have been complied with and no prohibited activities have occurred;
6. Information about current land use, including current operations at the site;
7. Property owner signature and date (as detailed in II. 2C).

B. Inspection Information: If engineering controls are used at the property, an inspection should be conducted by an Indiana licensed Professional Engineer or Environmental Professional (as detailed in II. 2C). As defined in ASTM Standard E2435-05, *Standard Guide for the Application of Engineering Controls to Facilitate Use or Redevelopment of Chemical-Affected Properties* engineering controls may be 'passive'[6] or 'active'[7]. Some typical examples of passive engineering controls include asphalt or concrete pavement, liners, clean soil covers, vegetative covers, sealing utility line entry routes (prevention of vapor intrusion), passive vapor barriers and permeable reactive barriers. Some typical examples of active engineering controls include various types of building pressurization/depressurization vapor mitigation systems (i.e. sub-slab, sub-membrane), slurry walls with recovery wells, interceptor wells or trenches, groundwater treatment systems, and leachate collection systems.

The annual inspection of engineering controls should include:

1. List of engineering controls observed at the site;
2. Inspection details regarding the condition and the integrity of the EC, and if the EC is functioning properly. For passive ECs, particular attention should be made to any joints and the condition of sealant, cracks, erosion channels, or other routes of potential exposure;
3. Detailed description of any work done to maintain the EC's integrity. This should include a description of whether any EC 'Operations and Maintenance Plan' exists and is being followed;
4. Detailed description of the measures taken to restore the integrity of the EC that has been compromised or damaged and the approximate restoration date;
5. Recommendations for restoring, maintaining, and improving the integrity of the EC;
6. Photographs of the EC at the time of the inspection;

7. Information about construction/excavation activities on-going at the site, or observations regarding signs of construction/excavation activities that may have affected the integrity of the EC;
8. Inspection Statement signature by the Indiana licensed Professional Engineer or Environmental Professional (as detailed in II. 2C).

C. Signatory Requirements: The report should be signed as follows:

1. If there are no engineering controls on the site (only restrictions such as no residential land use and no groundwater use), then the owner may sign the report certifying adherence to restrictions outlined in the ERC. An inspection by an Environmental Professional or Professional Engineer is not required.
2. If the site has passive engineering controls, then the annual report must be signed by both the owner and an environmental professional who conducts an inspection and documents the condition of the ECs. An 'Environmental Professional' must meet the qualifications in 329 IAC 9-5-5.1(b)(3).
3. If the site has active engineering controls, then the annual report must be signed by both the owner and an Indiana Professional Engineer. The Professional Engineer must first conduct an inspection and document the conditions of the ECs.

D. Submission of Report: Submit the *IDEM Institutional Controls Annual Certification and Inspection Report* to:

Indiana Department of Environmental Management
Office of Land Quality, Data Services Section
100 North Senate Avenue
Room 1101, MC 66-30
Indianapolis, IN 46204-2251

ATTN: IC REGISTRY COORDINATOR

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[1] For signature purposes, the definition of 'owner' includes the following:

- For corporations: by a responsible corporate officer. (A responsible corporate officer is a president, secretary, treasurer, vice president in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation.)
- For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

[2] A certified copy of the warranty deed may be obtained for a small fee at the appropriate County Recorder's office.

[3] Occasionally sites may have Quitclaim Deeds in lieu of Warranty Deeds. These are acceptable as long as they are certified copies and the Grantor had sole interest in the property (i.e., there are not additional parties that can claim ownership).

[4] GPS data should be collected with a mapping or survey-grade GPS receiver and data deliverable information submitted in conformance with the document *IDEM Office of Land Quality Location Spatial Collection Standards*. It is acceptable to provide the requested narrative information in another report format rather than a stand alone document ('Request for No Further Action', 'Remediation Completion Report', etc.). Any questions about GPS data deliverables may be addressed to the IDEM Office of Land Quality GPS Data Steward at (317) 232-8726.

[5] If the project is being managed by a program with other enforcement instruments (i.e. Consent Decree, Order), then a reference to that enforcement instrument detailing engineering controls, and operation and maintenance requirements should be included in the ERC.

[6] Passive Engineering Controls are defined in ASTM E2435-05 as systems that either require no energy or chemical inputs to take advantage of natural conditions to remove or control chemical-affected environmental media. Examples include surface covers of multiple types, passive vapor controls, groundwater seepage barriers, membrane liners.

[7] Active Engineering Controls are defined in ASTM E2435-05 as systems that involve the input of energy (e.g., electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy source) to remove, treat, or control chemical-affected environmental media. Examples include, but are not limited to, groundwater pumping, vapor extraction, and sub-slab ventilation systems (for vapor intrusion mitigation).

EXHIBIT B

SOIL ANALYTICAL RESULTS[1]

FACILITY ABC

ADDRESS

IDEM FACILITY ID. NUMBER 12345

Sample ID	Sample Depth (ft)	Sample Date	Naphthalene (mg/kg)	Arsenic (mg/kg)	Lead (mg/kg)
SB-01/MW04	4	3/25/2007	18,010	35.6	318
SB-01/MW04	8	3/25/2007	492	13.2	135
SB-02	12	3/25/2007	1200	11.2	76
SB-03/MW05	12	3/25/2007	185	6.7	Below RDCL
SB-04	4	3/25/2007	21000	26.8	230
SB-04	8	3/25/2007	820	15.2	96
SB-04	12	3/25/2007	45	8.8	49
SB-05	12	3/25/2007	900	2.3	Below RDCL
SB-07/MW02	12	3/25/2007	250	15.9	Below RDCL
SB-08	12	3/25/2007	1500	21.2	Below RDCL
SB-09/MW01	8	3/25/2007	10.5	5.7	Below RDCL
SB-10	8	3/25/2007	0.7	4.3	Below RDCL
SB-11	8	3/25/2007	0.5	9.4	Below RDCL
SB-12	8	3/25/2007	0.6	Below RDCL	Below RDCL
CAS Number			91-20-3	7440-38-2	7439-92-1
Residential Default Closure Level[3] (mg/kg)			**0.7**	**3.9**	**81**
Industrial Default Closure Level[3] (mg/kg)			**170**	**5.8**	**230**
Industrial Site Specific Closure Level[2] (mg/kg)				**9.8**	
Construction Worker Level[3] (mg/kg)			**17000**	**320**	**970**

[1] Sample results only shown for COCs detected above the RISC Residential Default Closure Levels

[2] From IDEM Approved *Risk Assessment for ABC Facility,* Background Sampling; February 2, 2008

[3] IDEM RISC Closure Levels; January 31, 2006 Update